Technical expert in Software Engineering / Software Architect / Project Manager (who codes! ;-))



Experience

Inria, équipe DiverSE

Research Engineer, In charge of CodeCommons project

- Creation and characterization of datasets for a generative AI (LLM) dedicated to code, open source and ethics, within Software Heritage.
- Advanced tools to analyze code quality, ensure code and vulnerability traceability, to improve AI reproducibility.

MediaKind

Technical expert in Software Engineering 2020-2024

- Improvement of development methods and tools, in a microservices architecture and SaaS environment:
 - Reduction of customer-reported bugs from 22 per month to 2;
 - Decrease in the team's bug-fixing workload from 50-60% to 20%.
- Definition and development by automatic generation of a Software Engineering dashboard using code analysis.

Sogeti

Senior Application Architect

Architecture and development of heterogeneous network supervision software (SNMP, CORBA, 2G/3G/4G/5G, Java, C++, Python, Gitlab, Docker).

Inria, équipe DiverSE

Research Engineer, Manager of the European project STAMP

Test automation and generation in DevOps

2016-2020

Open source development in Java and Python (Maven plugin, Github application and micro-service) (http://github.com/STAMP-project)

Thomson Video Netwoks / Harmonic

Method and tools - Software architect - Project manager - Trainer

 Process improvement, development and deployment of common software tools and components

2010-2016

2020

- Test and build chain automation
- Digital headend software development
- · Participation in collaborative projects
- · Management of subcontracting, in-house trainer

Technicolor

PMO - Software architect - Project manager

 Specification and implementation of a CMMI process improvement plan in an international organization, in charge of the Rennes (180 people) and Paris (30 people) centers.

1996-2010

- Specification, architecture and development of digital television software (MDA, Object Oriented, C++, embedded software)
- Management of subcontracting in India
- Writing of technical proposals in response to requests for proposals

SOFTEAM

Software architect - Project manager - Trainer - Technical salesperson

- Development and project management of Objecteering/Modelio OO case tool: automatic generation of code, tests, GUIs and database
- System administration
- · Consulting and development for customers

1990-1996

CR2A

Software engineer

Studies and development of research projects for civil and military avionics using AI techniques

DEFI-Formation

Freelance software engineer and intern

1988-1990

Development, maintenance and support of software for Windows

· Development of a graphical modeling tool

Ville de Paris

Trainee software engineer

Development, maintenance and support of PC applications

1987-1988

Talks and publications

• Talks at conferences: BreizhCamp, Devoxx, , Who run the tech ?, EclipseCon, Paris Open Source Submit, OW2Con, Station F



Caroline LANDRY



Anglais (courant)



Allemand (lu)



- Dance studio manager (http://moana-studio.fr)
- Sol'Arts Dancer-Choreographer (musicians and dancers)
- 2012-2017
- Founder and treasurer of the **Dyade** association
- Treasurer of the R.A.J.I. Budo **School association**
- 2007 2010
- Reviewer of the magazine JazzPulsions and subscriptions management
- 1998 2013
- Treasurer and member of the circus school "En Piste!"
- Member of the Compagnie Calabash, dancer and President
- Organization of dance festivals with teams of 30 to 80 volunteers
- 1992 1996
- Member of the Melting-Pot Company, dancer and volunteer
- 1982 1986
- Gymnastics club competition Ateam coach
- 1983 1984
- High-level athlete in tumbling

Writing of a paper in Linux Magazine (#227)

1985-1987

• Metamodel manipulation, code & test generation, Static & dynamic code analysis, Software verification & validation, DevOps, CI/CR/CD, Tests Automation, Agile Méehods, CMM/CMMI, Continuous Improvement & Change Management,



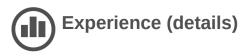
- C++, Python, Java, C, Lisp, Prolog, Eiffel, Smalltalk, XML, HTML, JSON, JavaScript, Ada, Pascal, shell, perl, PHP, assembleurs 8086 et 68000, CAML, UML, OMT, LaTeX
- git, Github, Gitlab, Azure DevOps, maven, svn, cvs, Clearcase, Modelio, Objecteering, Rose, BOUML, Soda, STP, Qt, Motif/X11, Jenkins, Flexnet, Visual C++, Softbench, net-snmp, apache, PITest, Descartes, RabbitMQ, Nginx, make, CMake
- Unix, Linux, Windows, Cygwin, VirtualBox, Docker, PSOS, QNX, Nucleus
- REST, SNMP, Ethernet, MHP, DVB, IEEE1394, Hiperlan2, 802.11

Education

UPMC - Université Pierre et Marie Curie (Paris VI)

• D.E.S.S. Génie des Logiciels Applicatifs (Master 2)





MediaKind

Software Engineering Expert

- · Agile coaching of the streaming/packaging team.
- Improvement of development methods and tools in a microservices architecture and SaaS environment: CI/CR/CD, test automation, shift-left testing, static and dynamic code analysis, metrics.
 - Reduction of customer-reported bugs from 22 per month to 2;
 - Decrease in the team's bug-fixing workload from 50-60% to 20%.

Sogeti

Senior Application Architect

- Architecture, development and code correction of alarm supervision software of Bouygues Telecom network (SNMP, CORBA, 2G/3G/4G/5G, Java, C++, Python, Gitlab).
- Development of automated test suites with pytest, including a load evaluation benchmark to define the optimal number of threads according to the number of cores of the platform used.
- Technical environment: SNMP, CORBA, 2G/3G/4G/5G, Java, C++, Python, Gitlab, Docker.

INRIA, DiverSE team (https://www.diverse-team.fr)

Research Engineer - Technical Project Manager

- Manager of the European project <u>STAMP</u> Software Testing AMPlification coordinated by INRIA: project organization, reporting and project reviews at the European commission.
- In charge of the INRIA technical work package developing the Descartes (mutation testing) and DSpot (test amplification) tools.
- Development of the Maven plugin pitmp-maven-plugin (https://github.com/STAMP-project/pitmp-maven-plugin).
- Development of a micro-service and a GitHub application (https://github.com/STAMP-project/descartes-github-app).
- Setup of a regression case base on Github (http://github.com/STAMP-project/dbug).

Thomson Video Netwoks / Harmonic

Method and tools - Software architect - Project manager - Trainer

- Transversal project manager on process improvement.
- Specification and development of internal tools for test automation, documentation generation, automatic capture of video streams on error reception, intranet application for management and search engine of test video streams.
- Redesign and standardization of the products licensing system connected to the ERP and the production platform: requirements, choice of tool, architecture and development in C++ of a software component, including a Java wrapper.
- Development in C++ on a Linux platform of software components of a modular platform for video broadcast headend equipment.
- Development of a cross-platform (Windows and Linux) SDK (Software Development Kit) for the development of SNMP agents including open source components and a code generator.
- Development of an SNMP agent for video stream analysis tools (Copper and Granite Sentinel).
- Development of video stream analysis tool features (Copper, Granite Sentinel, Media Extractor, VTS500, XMU).
- Development of test automation tools and implementation of automated test suites for regression tests, for several software products.
- Participation in collaborative projects: Distrim@ges, ENTHRONE II (European IST project).

Technicolor

PMO - Software architect - Project manager

- Definition and implementation of a CMMI process improvement plan in an international organization.
- Deployment and administration of internal tools for project and budget management.
- In charge of development methods and tools; internal consulting on development methods and software architecture.
- Specification and development of digital television software (decoder, production tool for interactive television, wireless home network). Modeling and documentation under Rational Rose and implementation in C, C++ or Java with Clearcase as configuration management tool. Definition and monitoring of subcontractors work and deliverables.
- Development process definition, including implementation of development tools.

SOFTEAM

Software architect - Project manager - Trainer - Technical salesperson

- Development of a major release (v3.0) of the Objecteering product (OO case tool) and minor releases. Team between twelve and twenty people.
- Realization of a GUI generation module and a multi-platform graphic library (Motif and Windows).
- Participation in the definition of the architecture of a new product (Objecteering v4.0/Modelio).
- Development of a unit test generation module with tooling under Motif and Windows.
- Implementation in C++ of Objecteering's GUI with Motif.
- Technical sales and technical support on the Objecteering product.
- System engineer for a pool of 30 machines (SUN, HP, PC).
- · Realisation of a Motif/X11 course.
- · Porting for CSEE DCI of a GUI from Sunview to XView.
- Realization for CSEE DCI of a prototype of heterogeneous network supervision in C++, with the class-relation method, GUI with Motif, HP Openview supervision platform.

Software engineer

- Specification for the CENA (center for air traffic studies) of a prototype of flight level planning for air traffic control assistance.
- Realization for THOMSON SDC (Thales) of a fighter jet interception prototype in Prolog, with GUI in X11 and kinematic calculations in ADA.

DEFI-Formation

Trainee software engineer

• Final internship: realization of a graphical tool to help in the design of applications on the Entity-Relationship model (Merise method), under Windows.

Ville de Paris

Trainee software engineer

• Development and maintenance of a multi-station PC-based budget management application for the Ministry of Urban Planning. Summer internships 3 consecutive years.